

The Use of the Thai Giant Waterbug, *Lethocerus indicus* (Hemiptera: Belostomatidae), As Human Food in California

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Lethocerus indicus (Le Peletier & Serville) is a large (60–80 mm) belostomatid that is native to Southeast Asia (Menke 1960). This bug is eaten by people in Burma, China, India, Indonesia, Laos, Thailand and Vietnam (Mitsuhashi 1984). In 1969, I observed Thais gather large quantities of a belostomatid (probably *L. indicus*) during their dispersal flights at Korat on Thailand's paddy rice growing plain. The preserved whole bugs were subsequently common in Korat's food markets.

In 1986 I was surprised to find *L. indicus* (Figure 1,A) for sale at a Thai food shop (Oy's Market) in Berkeley, California. The bugs, called "mangda" in Thai, had been preserved by boiling in salt water and were priced at \$1.50 each. Oy Sanok, the market's owner, says (pers. comm.) that the bugs, which she imports from Thailand, have been met with enthusiasm from her Thai and Laotian customers, who use *L. indicus* to make bug-paste condiments. The Thai bug-paste, called "nam prik mangda," is usually prepared by combining and mashing a whole bug with salt, sugar, garlic, shallots, fish sauce, lime juice and hot Thai capsicum peppers in a mortar and pestle. Some cooks remove the bug's eyes, wings and other sclerotized parts before using. "Nam prik mangda" is commonly used as a vegetable dip and as a topping for cooked rice. The bug has been reported (Bodenheimer 1951) to have a strong gorgonzola cheese taste, a flavor not very discernable in the red pepper dominated "nam prik mangda."

A commercial preparation of the bug-paste (Figure 1,B) was found in a San Francisco Thai market. In addition, clear alcohol extracts of the bug (Figure 1,C) called "Mangdana essence" were being sold in Southeast Asian markets in Berkeley, Oakland and San Francisco. A few drops of "mangdana essence" is used as a substitute for a whole bug in the preparation of "nam prik mangda." The commercial bug-paste and the bug extracts, which are made in Thailand, are considered to be inferior in taste to home-made "nam prik mangda" which uses whole bugs. These products cost between 79¢ and \$1.20.

It is interesting to note that no mention of the bug was made on the English language ingredient labels of these products. Are the manufacturers of these products concerned that openly marketed insect foods might prove culturally offensive and harmful to business?

I have been unable to find *L. indicus* being sold in California's Chinese markets, as observed by Usinger (1956) in San Francisco, but suspect that the bug is still used by some California Chinese.

The presence of *L. indicus* and its products in California markets is indicative of the great diversity of Asian food entering America.



Figure 1, A. The Thai giant water bug, *Lethocerus indicus*, B., a commercial preparation of a food paste made from *L. indicus*, C., a commercial alcohol extract of *L. indicus* for use in the preparation of the food paste.

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